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# PROCEEDINGS

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[From the AMERICAN NATURALIST, Vol. ix, February, 1875.]

AN ADDITIONAL CHARACTER FOR THE DEFINITION OF RHYNCHOPHOROUS COLEOPTERA.<sup>1</sup>—On two former occasions I have invited the attention of my colleagues of the Academy to the relations which the Rhynchophorous Coleoptera bear to the other divisions of that order of insects. In the first of these I endeavored to show that they formed a group which was equivalent to all the others combined. The defining character of the group I stated to be, that the posterior lateral elements (the prothoracic epimera), of the under surface of the prothorax, coalesced on the median line, in such a manner as to form a longitudinal suture behind the end of the prosternum; in all other Coleoptera<sup>2</sup> the prosternum ends in a vacant space, or extends so as to take part in the articulation between the pro- and metathoracic segments. In the second memoir I attempted a sketch of the manner in which the group might be naturally divided into series and families.

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<sup>1</sup> Read before the National Academy of Sciences, at Philadelphia, Nov. 5, 1874.

<sup>2</sup> Except in *Cossyphus* and a few *Colydiidae*.

During the progress of the investigations which will terminate in the classification, according to the scheme there proposed, of the genera and species by which the Rhynchophora are represented in our fauna, I have been led to observe an additional character serving to define this great and important complex of genera. This character strengthens greatly the opinion I first announced concerning its systematic value, as an equal of all the other Coleoptera combined.

On separating the head of a Rhynchophore, it is seen that the cranium (I use this word for want of a better term) is globose, and always presents a distinct trace of a median suture on the under surface corresponding with the gular sutures of other Coleoptera. In the latter, however, these sutures diverge either before or behind, and rarely (Silphidæ and Staphylinidæ), approximate at the middle of their course. Whether the differences in direction of these sutures may or may not, when carefully studied, give indications for the definition of the series into which the normal Coleoptera are now divided upon other characters, I cannot now say. But this much I can assert positively, that in no other but the Rhynchophora, do the lateral elements of the under surface of the head coalesce on the median line, so as to form a straight longitudinal suture extending to the posterior limit of the chitinous part of the head.

In most of the Coleoptera the gular sutures diverge behind, and even when they are obsolete, their posterior termination is indicated by a nick or irregularity in the outline of the infero-posterior margin of the cranium. In the Ptinidæ and Bostrichidæ, by a remarkable exception, the sutures, though distant in front, converge behind.

It will not be in my power, for some time to come, to follow this train of investigation to its limits, and I now make known these imperfect observations in the hope of inducing observers, who are less burdened with a great mass of material urgently pressing for classification, to give some attention to the valuable characters here indicated.—J. L. LECONTE, M.D.

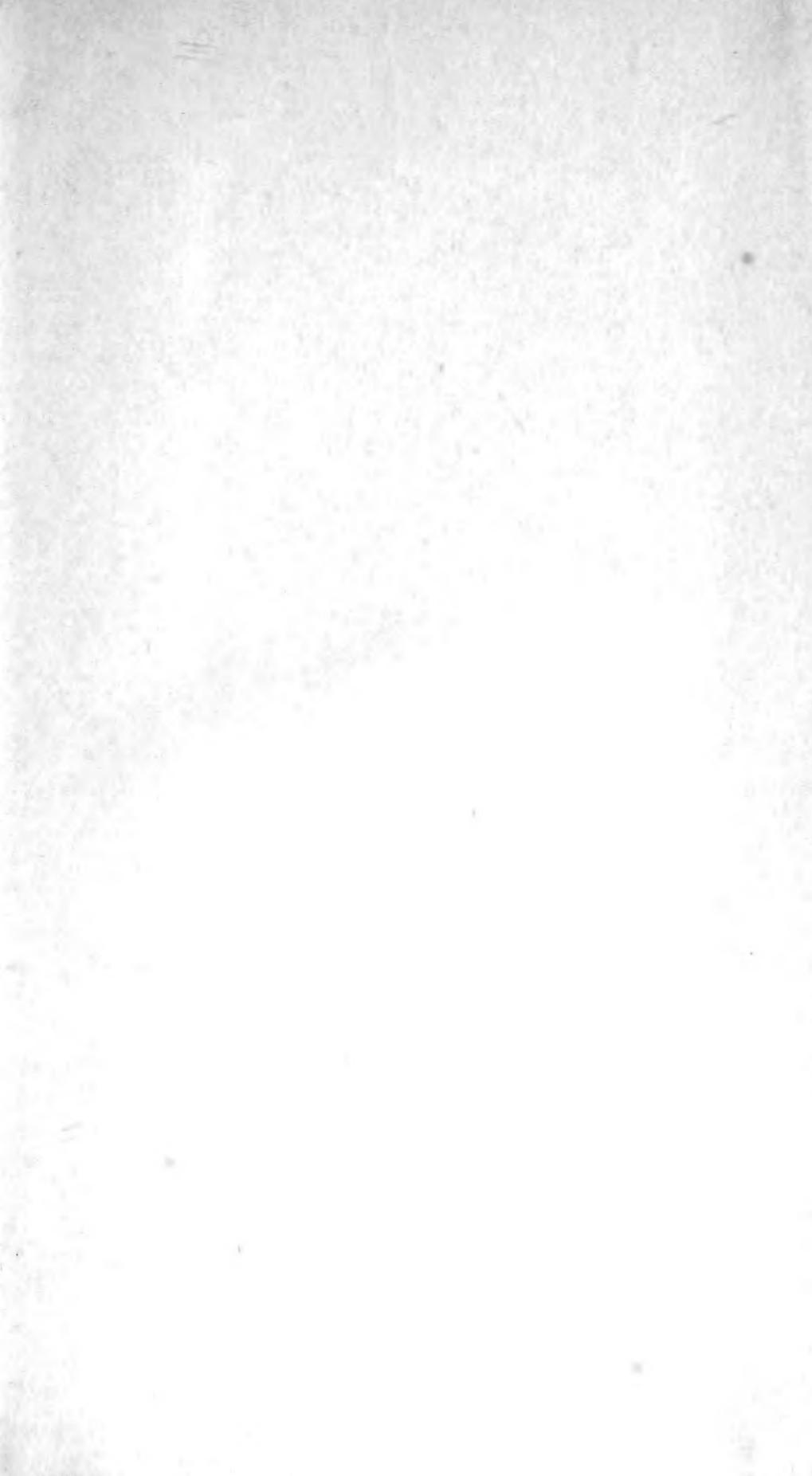


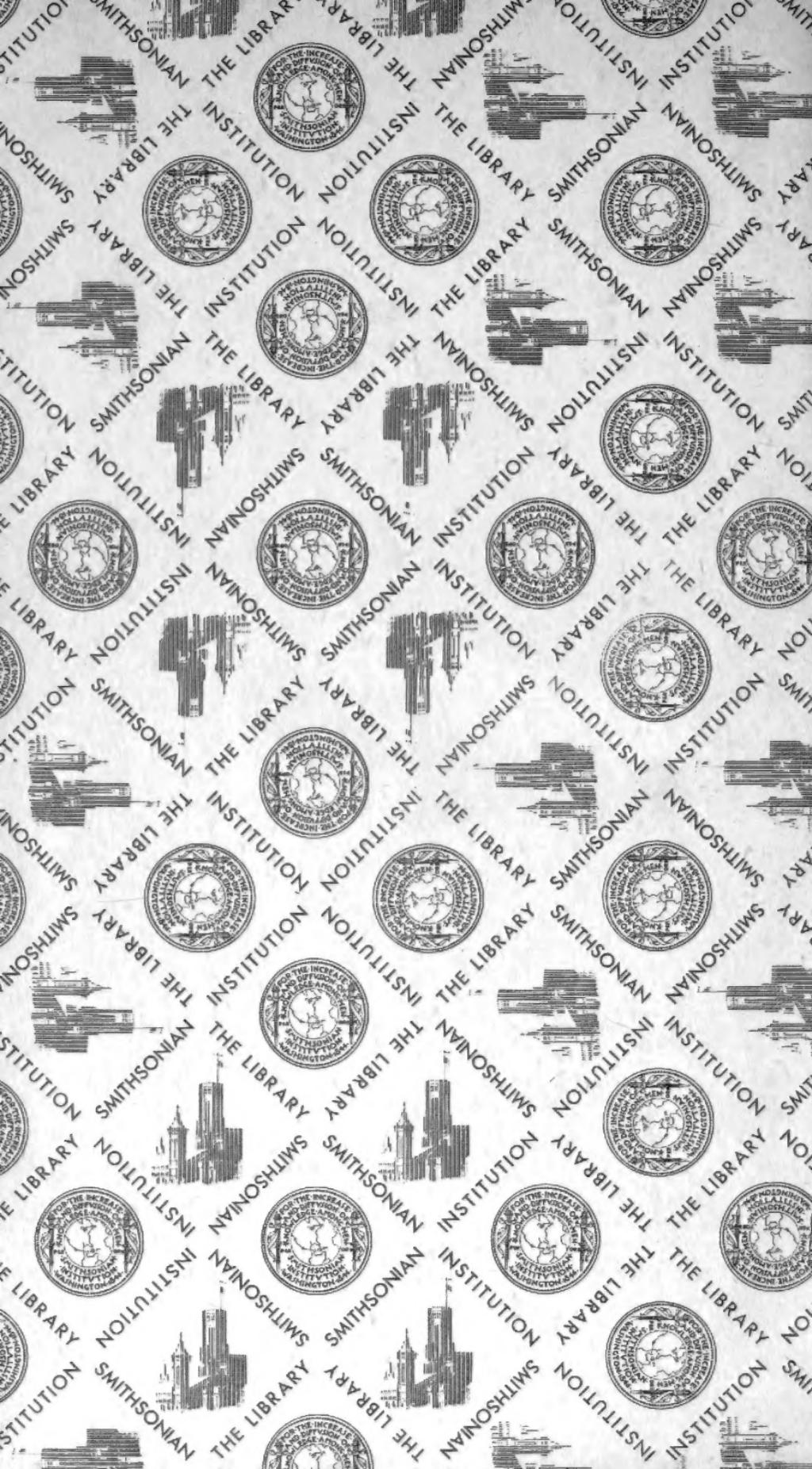


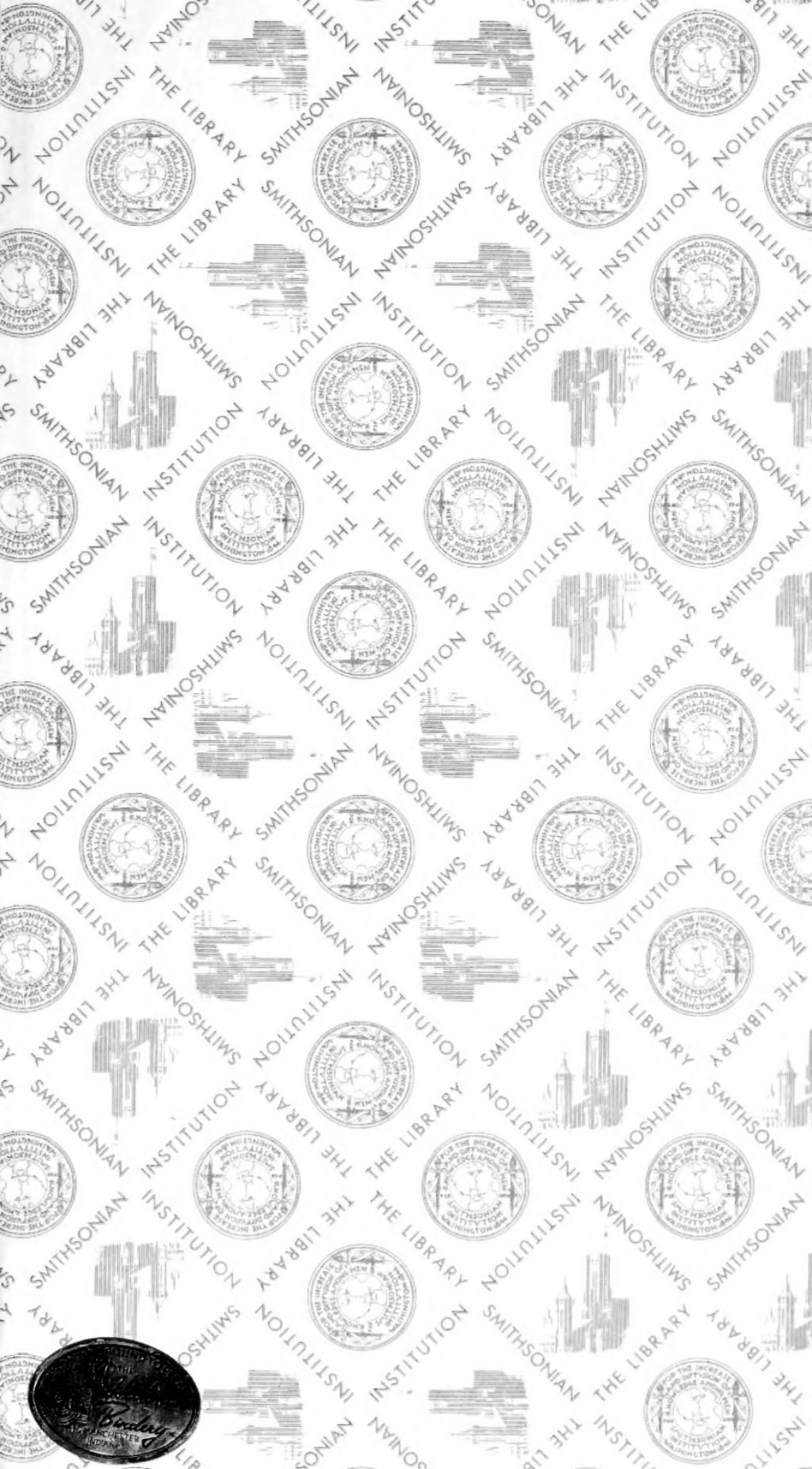












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